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ABSTRACT

This report documents the 1981-82 evaluation of the Elementary and Secondary Education Act, Title I, Part B, Institutional Facilities Program carried out through the Division of Special Education of the New York City public schools. Using a diagnostic-prescriptive methodology, the program provided after-school and pull-out individualized remedial instruction in vocational and occupational education to approximately 3,000 children and adolescents residing in 172 facilities for the neglected or delinquent. Some students also received reading and math instruction. Evaluation focused on physical setting, materials, supplies, program goals, instructional activities, student records, planning, assessment, staff background, orientation, supervision, as well as problems in implementation and administrative concerns. Also evaluated were pupil achievement objectives in reading and mathematics. Measures of the relationship between mastery of new skills and amount of instruction indicated that the program met or exceeded its proposed goals in all pupil achievement areas. It is recommended, however, that the program (1) focus on elements other than vocational skills for some retarded and the very young children; (2) establish instructional policy for transient pupils; (3) modify testing requirements; and (4) provide more inservice training. (Author/WAM)

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ED227195

O.E.E. EVALUATION REPORT
November, 1982

TITLE I

INSTITUTIONALIZED FACILITIES
PROGRAM
1981-82

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New York City Public School
Office of Educational Evaluation
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UD 022 688

A SUMMARY OF THE EVALUATION
FOR THE
1981-1982 E.S.E.A. TITLE I, PART B
INSTITUTIONALIZED FACILITIES PROGRAM

During 1981-82, its thirteenth year, the Institutionalized Facilities Program provided after-school and pull-out remedial instruction to over 3,000 children and adolescents residing in facilities for the neglected or delinquent. The major focus of the current program cycle was vocational and occupational education, a departure from previous years' emphasis on reading, math, and writing skills; this year all students received career education instruction and one-third each received reading and math.

Measures of the relationship between mastery of new skills and amount of instruction indicated that the program met or exceeded its proposed goals in all pupil achievement areas. Students mastered career education skills at an average rate of 3.6 skills for every five hours of instruction; the rate of mastery for reading skills was 2.5 per five hours and for math skills it was 3.7. Regression analyses for mastery by amount of instruction provided further evidence of program effectiveness.

Overall, the program operated smoothly and no serious problems were reported. The major obstacle, according to teachers, was substantial pupil transience; attendance was as high as 90 sessions but the average was only 20. Frequent student turnover, as well as the marked diversity in students' abilities and backgrounds, gave rise to the following recommendations for further improvement:

- Choice of program goals and assessment instruments should be more flexible. In particular, vocational/occupational skills are not the most appropriate goals for certain mentally-retarded or very young children. In such cases, activities of daily living might serve as an effective alternative.

- A program policy needs to be established concerning the instructional goals and curriculum for transient pupils. Individual instructional planning ought to consider probable length of residence.

- The testing requirement should be more discretionary. In sites where populations are stable, pre- and post-testing presents no problems; in highly transient sites, however, this is often impractical. An attempt should be made to incorporate data retrieval procedures into ongoing planning and assessment.

- Additional in-service training in occupational/vocational education should be attempted particularly in selection and use of curriculum materials.

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I. INTRODUCTION

This report documents the evaluation of the thirteenth year of the E.S.E.A. Title I, Part B Institutionalized Facilities Program sponsored by the Division of Special Education of the New York City Public Schools. The program provided twice-weekly, after-school or pull-out remedial instruction to approximately 3,000 children and adolescents residing in 172 facilities for the neglected or delinquent; pull-out remediation was provided to the day-school programs at Riker's Island (P.S. 233 Q and P.S. 256 Q), Spofford Juvenile Center, four upstate drug rehabilitation centers, and the Mission of Mount Loretto School (P.S. 25 R). The major focus of the 1981-82 program was vocational and occupational education, a departure from the previous years' emphasis on reading, math, and writing skills. All students in the 1981-82 program received individualized instruction in career education using a diagnostic-prescriptive methodology. In addition, roughly one-third each were given reading and math remediation in the career-vocational content area. Pupil achievement objectives for the program were that students would master new skills in each of these areas at a rate of one skill for every five weeks of instruction. Staff included the program coordinator, 11 itinerant supervisors, 263 teachers, and three paraprofessionals.

Findings of the evaluation of the previous program cycle, which served approximately 2,000 students, indicated that pupil achievement objectives were only partially met. Specifically, the 1980-81 criterion of mastery of one skill for each six weeks of instruction was attained by 65 percent of the students in reading, 62 percent in mathematics, and 27 percent in writing, as opposed to the proposed 80 percent. Further analyses suggested that despite the program's full implementation and smooth operation, its

effectiveness was impaired by the marked transiency of the population; average attendance was 28 sessions for the fall term and 23 sessions for the spring. Correlation coefficients of .41 and .34 between attendance and mastery of reading skills and mastery of math skills, respectively, indicated that the program did have an effect on skills acquisition in both areas, although not at the level proposed. Poor student motivation was also seen as limiting achievement.

Major recommendations for improvement of the program based on the 1980-81 evaluation were to continue the diagnostic-prescriptive approach, to give consideration to designing an integrated system of pupil reinforcement, and to ensure that sufficient additional training be provided to any program staff member requesting it.

As in past program cycles, the current 1981-82 Institutionalized Facilities Program was evaluated by the Office of Educational Evaluation (O.E.E.) through the collection and analysis of data from pupil achievement tests and observation and interview records from visits to randomly-selected program sites. Site visits were conducted by O.E.E. field consultants between January and May, 1982. The following chapters present the findings on program implementation and pupil achievement for the current program year and relate these to findings and conclusions from previous cycles.

II. EVALUATION OF PROGRAM IMPLEMENTATION

PROGRAM DESCRIPTION

The Institutionalized Facilities Program supplemented basic education for 3,087 students, aged six to 22 years, residing in facilities for the neglected or delinquent by providing remedial instruction in vocational and occupational education, reading, and mathematics. The backgrounds, needs, and abilities of these students varied widely; the program served delinquent adolescents in houses of detention, court-referred youth waiting placement, mentally retarded and emotionally handicapped children in group homes, and pregnant adolescents. The 59 institutions which operated the 172 residential facilities were both publicly- and privately-funded and in roughly half the cases also provided the basic educational program for their student residents. Most of the students who attended school on-site were detained in locked facilities for delinquent youth; with the exception of some handicapped students who also went to school at their residential sites, all other students attended neighborhood public schools and returned to the residences in the evening.

The typical length of residence varied markedly among sites. In facilities to which students were referred by the courts the stay was often less than one month; length of residence for pregnant adolescents ranged from a few weeks to several months; handicapped children in group homes, in contrast, often stayed in these facilities for a year or more.

For the most part instruction was provided after regular school hours. Pupil progress was assessed through ongoing administration of the following individually-administered, criterion-referenced tests: the Career Education/

Prevocational Skills Assessment Inventory, the Fountain Valley Reading Test, and the Basic Arithematic Skills Evaluation (BASE).

EVALUATION METHODOLOGY

Field consultants from O.E.E. visited a randomly-selected sample of program facilities, observing instruction and interviewing program staff at 52 sites (30 percent). Data were recorded on O.E.E.-developed observation records and interview guides.

FINDINGS

Physical Setting, Materials, and Supplies

At 15 of the 52 sites program instruction took place in the same classrooms used by students during the regular school day. As such, these settings were optimal for displaying curriculum materials and student work, storing supplies, and providing clearly-defined pupil work areas. The remaining 37 sites were residences for students who attended neighborhood public schools during the day. In these sites, many of which were apartments or houses, program instruction was held in offices, students' rooms, living rooms, dining rooms, and, in one case, a laundry room. Despite the diversity in settings, 42 of the 52 teachers interviewed found the facilities adequate. Some, in fact, preferred the residential spaces to regular classrooms as more private, cheerful, and conducive to learning for poorly motivated students.

Materials and supplies were provided, for the most part, by the program but were supplemented by other sources. At 37 of the sites visited materials were purchased with funds from the current program year, at 12 of the sites

materials were provided by the sponsoring institutions or were drawn from stockpiles from previous program cycles, and in three of the sites teachers relied on their own noncommercial materials.

Program Goals and Instructional Activities

The overall program mandate was to improve the prevocational and career skills and reading and mathematics abilities of participating students. Program teachers who were interviewed were asked to describe their own specific goals for their students. The responses varied somewhat according to the population served but almost all teachers stated the following: improved sense of self-worth; upgrading of reading and math skills, especially in the context of acquiring and keeping a job; and the development of realistic occupational goals and vocational skills. Mentioned among the latter were career-seeking skills, societal and survival skills, and, for lower functioning students, activities of daily living.

The instructional activities which were observed were by-and-large in keeping with these stated goals. Job-related lessons included studying the classifieds for available positions and discussing job-application procedures; identification of abilities necessary for particular jobs; discussion of appropriate work attitudes; computation of wages and taxes; and comparison of consumer goods and prices. Reading and math instruction were integrated into the context of career education. In two cases in which the students were mentally handicapped the instruction was in prevocational life skills rather than vocational skills; lessons observed involved changing money, recognizing traffic signals, and identifying social situations depicted in drawings.

The materials in use also reflected program goals. Twenty-two of the 52 sites used the Globe Vocational Series and 14 used the Janus series, both of which are reading series with vocational, occupational content. The teachers preferred these to all other reading materials. Other vocationally-oriented reading materials included the S.R.A. Reading for Survival series, the Arco Job Handbook, Life Skills Reading, and the Pal Practical Vocational Series; math materials included Math and Your Career, Math Life Skills, and BASE Math; and regular reading series included McCall-Crabbs, Barnell-Loft, and Cloze. Non-commercial materials used in lessons included newspaper help-wanted listings, application forms from public and private institutions, tax forms, and teacher-made worksheets.

Class sizes were generally small permitting individualized instruction. Class registers averaged seven students and ranged from two to 17; average attendance was five. Teachers typically worked with one student at a time and, less often, with small groups. Nearly all the teachers interviewed stated that one-to-one tutorial approach was most effective for building rapport and improving student motivation.

Student Records, Planning, and Assessment

Up-to-date records were maintained at every site. Student folders typically included student work samples, teacher logs and anecdotal materials, test results, attendance records, individualized educational plans, and pupil contracts.

At most sites criterion-referenced testing was proceeding as proposed; however, only the teachers at the long-term facilities expressed satisfaction

with the assessment procedures. At sites with high rates of turnover, teachers found testing to be burdensome and time-consuming and 20 reported that often they were not able to carry out posttesting because students were tranferred or discharged with little or no advance notice. Seven teachers stated that students should be assessed informally and 19 teachers substituted tests that they considered more appropriate for their populations.

Staff Background, Orientation, and Supervision

The staff was experienced, including teachers who held full-time positions during the regular school day. Almost all (47 out of 52) had taught more than five years and most (39) ten years or more. Similarly, most (39) taught special education more than five years.

With the exception of two who were hired mid-year, all teachers attended an orientation session conducted by the program coordinator. The orientation covered program goals and objectives, test administration, and administrative and clerical issues and was seen by teachers as adequate. A number of teachers suggested that additional smaller meetings with their supervisors would be helpful to address specific concerns and, in particular, methods and materials for career education. However, about one-half of the teachers stated that they had been incorporating vocational and occupational goals into their reading and math instruction for a number of years and were thus prepared for the shift in program emphasis.

Most teachers also described supervision as satisfactory, though some teachers stated they would have benefited from more frequent supervisory contact.

Problems in Implementation and Administrative Concerns

Teachers reported that the greatest obstacle was student transience; almost every teacher at the sites with frequent student turnover commented on the difficulties this presented for program implementation. In addition, uncertainity regarding the length of stay for any particular student further hampered effective planning and instruction. Since the courts decided length of residence, the program teachers could not anticipate exactly how long a student would be in the program. In contrast, at long-term residence sites, most of the teachers said that the program was viable and provided meaningful instruction in a non-threatening atmosphere. At four of the sites, for example, students were looking forward to attaining their General Equivalency Diplomas, which teachers attributed to participation in the program.

Teachers noted other problems in implementation including conflicts between the schedules of the program and facilities and variation among sites in student participation policy; in cases where participation was voluntary, sporadic attendance reportedly compounded the effects of pupil transience. Finally, 22 of the teachers said that the schedule of only two sessions per week limited program effectiveness and suggested increases in both number and length of the sessions. Five teachers recommended that a summer program be included to improve continuity.

The large majority of teachers indicated that the residential facilities supported the program by providing suitable settings for instruction, encouraging students to attend, and providing relevant information.

III. EVALUATION OF PUPIL ACHIEVEMENT OBJECTIVES

Data were reported for 3,087 students, an increase of 51 percent over the previous program cycle. All participating students were instructed and assessed in vocational and occupational education, the primary thrust of the program; in addition, 1,158 students were instructed and assessed in reading and 1,067 in mathematics.

The students ranged in age from six to 22 years with a mean of 17; three-fourths of the students were 16 or older. Males outnumbered females by about two to one. The number of sessions attended ranged from zero to about 90 with a mean of 20; two-thirds of the students attended 21 or fewer sessions. The mean percentage of attendance was 82 percent (S.D. = 20.4). Session length varied somewhat from site to site, apparently reflecting variation in instructional content, i.e., whether or not reading and math as well as career education were being taught. Session length was reported most often as 30, 45, 60, or 80 minutes.

FINDINGS

Pupil Achievement in Vocational and Occupational Education

The proposed pupil achievement objective was that students would master new skills, as measured by ongoing administration of the Career Education and Prevocational Skills Assessment Inventory, at a rate of one skill for every five weeks of instruction. Complete achievment data for 2,391 students (77.5 percent) were analyzed; the rest were truant (17.2 percent) or were discharged early, expelled, or did not participate fully (5.3 percent).

To determine whether the objective was attained, the relationship

between the number of skills mastered and amount of instruction was studied by means of a linear regression analysis. The criterion was a mastery rate of one skill for every ten sessions (five weeks). To control for variability in session length, the average hourly equivalent of ten sessions, i.e., five instructional hours, was used in the analysis.*

According to the data shown in Figure 1, students receiving up to 40 hours of instruction (95 percent of the sample) mastered new skills at a rate well above the criterion level of one skill per five hours of instruction. Students receiving five hours or less mastered an average of 3.2 new skills (N = 491); those receiving from five to ten hours mastered 5.7 skills (N = 598); students receiving ten to 15 hours mastered 8.0 (N = 403); students receiving 15 to 20 hours mastered 9.6 (N = 274); students receiving 20 to 25 hours (N = 214) mastered 10.0; and those receiving 25 to 40 hours of instruction (N = 257) mastered an average of 10.6 new skills. For amounts of instruction over 40 hours there was no corresponding increase in number of skills; these students (N = 139) mastered an average of 9.7 new skills.** The observed negative acceleration of the mastery curve (i.e., the small increase in mean number of skills mastered between twenty

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*The operational criterion was a linear regression coefficient of 1.0 for the function of number of skills mastered by number of five-hour blocks of instruction.

**A significant ($p<.05$) nonlinear component to the relationship between mastery of career education skills and instruction was revealed, reflecting the leveling off of mastery rate after 40 hours. When this was controlled, the adjusted linear regression coefficient was 1.9, exceeding the criterion by a factor or nearly two.

FIGURE 1

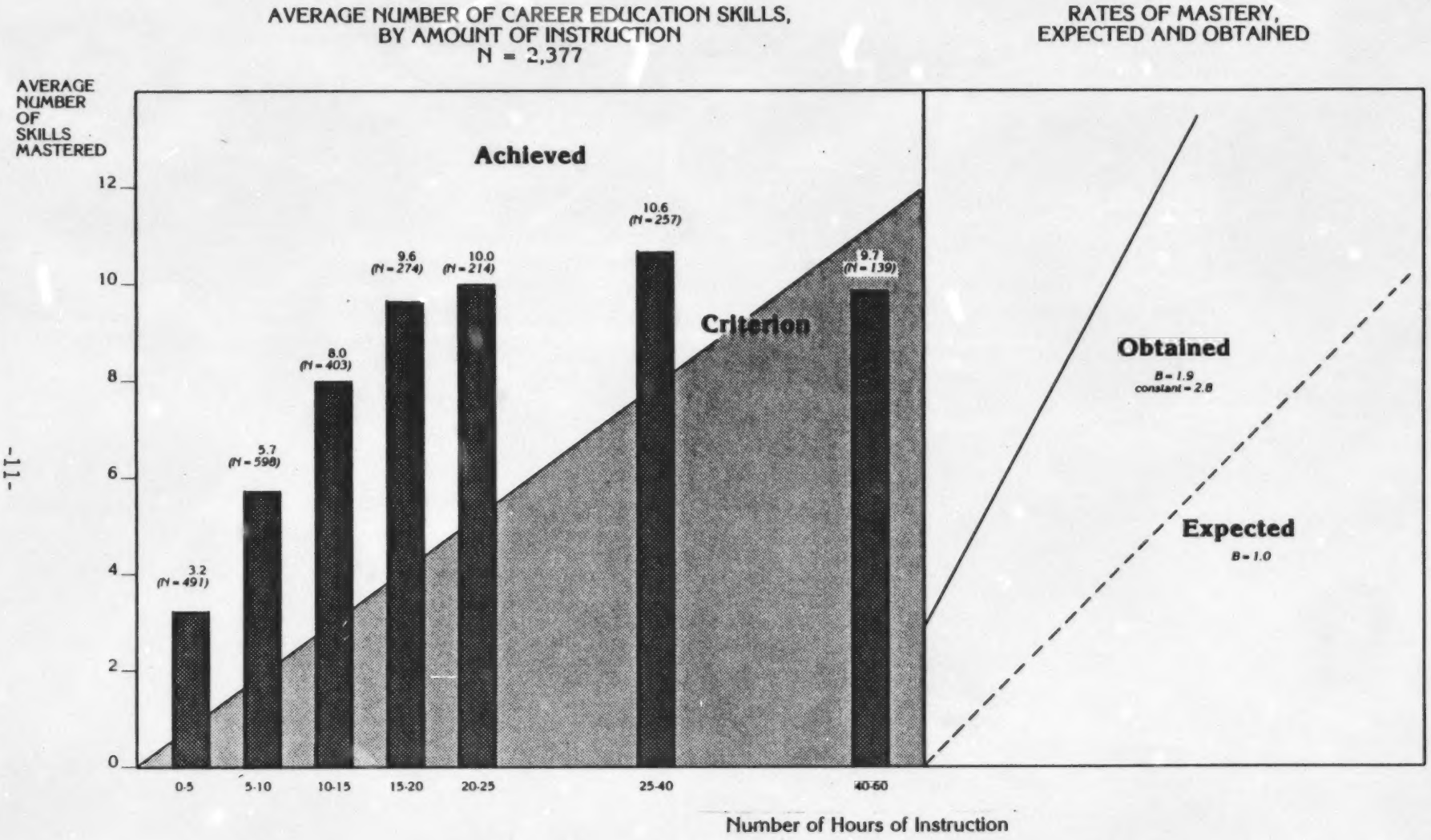

AVERAGE NUMBER OF CAREER EDUCATION SKILLS, BY AMOUNT OF INSTRUCTION
N = 2,377
RATES OF MASTERY, EXPECTED AND OBTAINED
AVERAGE NUMBER OF SKILLS MASTERED
Achieved
Criterion
3.2 (N = 491)
5.7 (N = 598)
8.0 (N = 403)
9.6 (N = 274)
10.0 (N = 214)
10.6 (N = 257)
9.7 (N = 139)
0
2
4
6
8
10
12
0-5
5-10
10-15
15-20
20-25
25-40
40-60
Number of Hours of Instruction
Obtained
B = 1.9
constant = 2.8
Expected
B = 1.0

TABLE 1

Frequency Distribution of Rates of Mastery of Career Education Skills, Expressed as Number of Skills Mastered Per Five Hours of Instruction

Mastery rate	Number of students	Relative percent of population	Cumulative percent of population
More than 15	59	2.5	2.5
10 to 15	100	4.2	6.7
5 to 10	428	18.0	24.7
1 to 5	1,396	58.8	83.5
Less than 1	391	16.5	100.0
	2,574		

Over 80 percent of the students mastered one or more new career education skills for every five hours of instruction.

The average rate of mastery was 3.7 skills for every five hours of insruction.

and forty hours of instruction and, indeed, the decease after forty hours) contradicts the opinion voiced by program teachers during interviews that program effectiveness would be enhanced by increases in both number and length of the sessions (see page 8).

A frequency distribution of mastery rates, presented in Table 1, showed that over 83 percent of the participating students mastered at least one new career education skill for every five hours of instruction; overall, the average rate of mastery was 3.7 skills for every five hours.

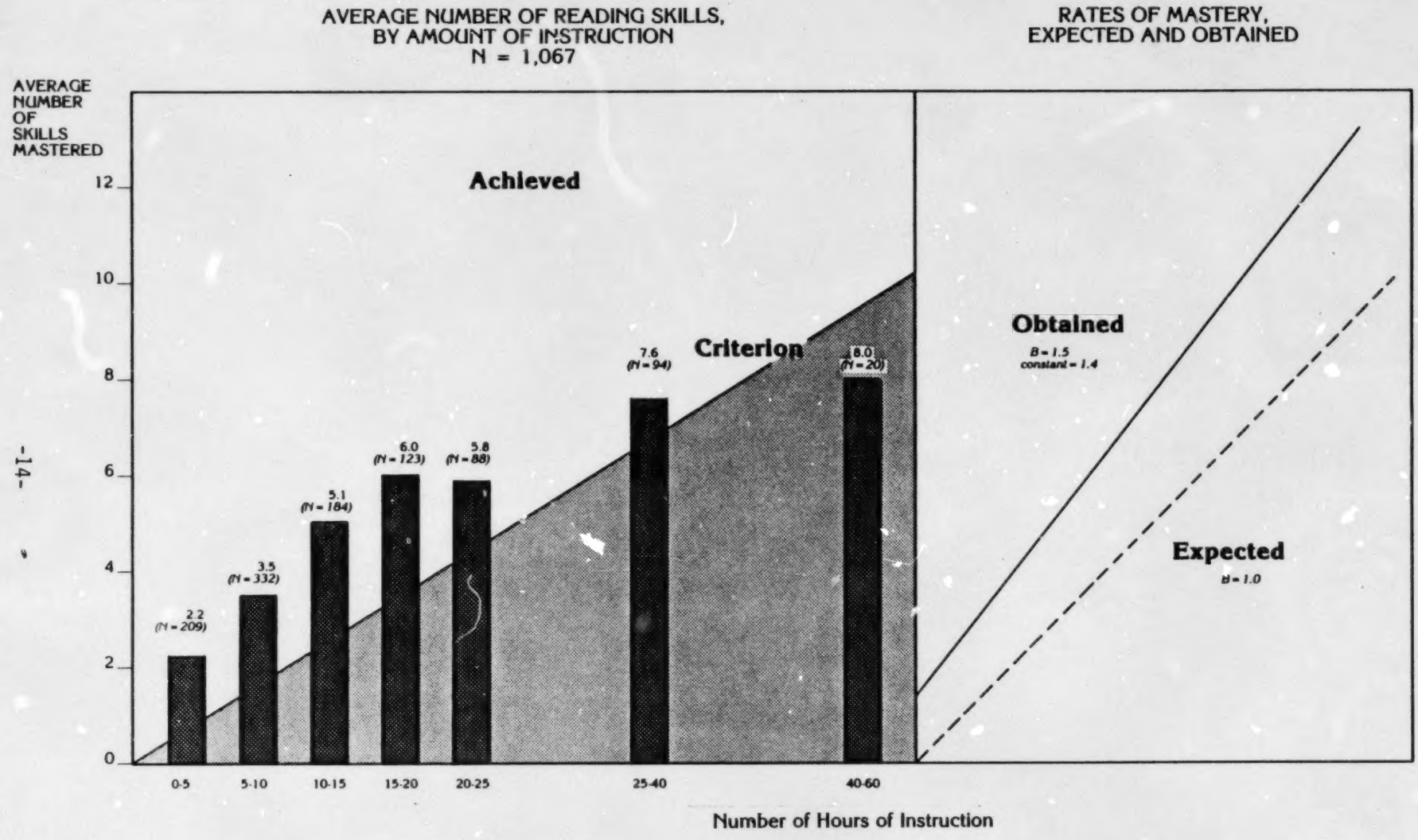
The correlation between mastery and instruction was 0.43 indicating that instructional time accounted for 18 percent of the variance in the number of career education skills mastered.

Pupil Achievement in Reading

The proposed reading objective was that participating students would master new skills, as measured by ongoing administration of the Fountain Valley Reading Test, at a rate of one skill for every five weeks of instruction. Achievement data were reported for 1,158 students of whom 90 (7.7 percent) were low attenders due to truancy, expulsion, or brief period of residence; complete achievement data were available for 1,068 students.

To determine whether the objective was attained, the relationship between the number of reading skills mastered and amount of instruction was studied through a linear regression analysis. Again, the criterion was mastery of one skill for every ten sessions (five weeks) and the average hourly equivalent of five instructional hours was used in the analysis. The summary and graphic representation of the reading data are presented in Figure 2.

FIGURE 2


AVERAGE NUMBER OF READING SKILLS, BY AMOUNT OF INSTRUCTION N = 1,067
RATES OF MASTERY, EXPECTED AND OBTAINED
AVERAGE NUMBER OF SKILLS MASTERED
Achieved
Criterion
Obtained
B = 1.5
constant = 1.4
Expected
B = 1.0
2.2 (N = 209)
3.5 (N = 332)
5.1 (N = 184)
6.0 (N = 123)
5.8 (N = 88)
7.6 (N = 94)
8.0 (N = 20)
0-5
5-10
10-15
15-20
20-25
25-40
40-60
Number of Hours of Instruction

Number of objectives mastered by amount of instruction were as follows: students receiving less than five hours of instruction mastered an average of 2.2 new skills (N = 209); those receiving five to ten hours mastered 3.3 (N = 332); those receiving ten to 15 hours mastered 5.1 (N = 184); those receiving 15 to 20 hours mastered 6.0 (N = 123); those receiving 20 to 25 hours mastered 5.8 (N = 88); and those students receiving 25 to 40 hours of remedial reading instruction mastered an average of 7.6 new reading skills (N = 94). Once again, there was no further increase in skills mastered for more than 40 hours of instruction; these students (N = 20) mastered an average of eight new skills.*

A frequency distribution of rates of mastery, which is presented in Table 2, showed that 81 percent of the students mastered at least one new reading skill for every five hours of instruction; average rate of mastery was 2.5, well above the criterion value of 1.0. A correlation coefficient of 0.52 between mastery and amount of instruction indicated that 27 percent of the variance in number of reading skills mastered was accounted for by the number of five-hour blocks of instructional time.

Pupil Achievement in Mathmatics

The achievement objective in math was for students to master new skills, as measured by ongoing administration of the Basic Arithematic Skills Evaluation (BASE), at a rate of one skill for every five weeks of instruction. Achievement data were reported for 1,067 students; for 979 of these (92

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*As was the case for career education, a significant ($p<.05$) nonlinear component to the relationship between mastery of reading skills and instruction was found. When nonlinearity was controlled, the adjusted linear regression coefficient was 1.5; thus the objective was attained.

TABLE 2

Frequency Distribution of Rates of Mastery of Reading Skills, Expressed as Number of Skills Mastered Per Five Hours of Instruction

Mastery rate	Number of student	Relative percent of population	Cumulative percent of population
More than 15	6	0.5	0.5
10 to 15	21	1.9	2.4
5 to 10	87	7.9	10.3
1 to 5	788	71.2	81.5
Less than 1	205	18.5	100.0
	1,107		

Over 80 percent of the students who were assessed on the Fountain Valley Reading Test mastered one or more new skills for every five hours of instruction.

The average rate of mastery was 2.5 skills for every five hours of instruction.

percent), complete data were available. The remaining 88 students (8 percent) were in the program briefly or were truant or expelled.

To determine whether the mathematics objective was attained, the relationship between mastery and amount of instruction was studied through a linear regression analysis. Instructional time was again measured in five-hour blocks which were estimated as equivalent to five weeks of program participation. The frequency distribution of mastery rates for math, presented in Table 3, showed that 83 percent of the participating students mastered at least one skill for every five hours of instruction; the average rate of mastery for mathematics skills was 3.7 per five hours, again well above the criterion value of 1.0. To elaborate further, students receiving up to five hours of instruction mastered an average of 3.3 new skills ($\underline{N}$ = 186); those receiving five to ten hours mastered 5.4 ($\underline{N}$ = 293); those receiving ten to 15 hours mastered 8.4 ($\underline{N}$ = 186); those receiving 15 to 20 hours mastered 8.7 ($\underline{N}$ = 115); and those students receiving 20 to 25 hours of instruction mastered an average of ten new math skills ($\underline{N}$ = 86). There was no further regular increase in skills mastered for students receiving more than 25 hours of instruction; those with 25 to 40 hours ($\underline{N}$ = 74) mastered 8.5 new skills and students receiving more than 40 hours of instruction ($\underline{N}$ = 33) mastered an average of 12.6. (See Figure 3.)*

The correlation between mastery and instruction was 0.43 indicating that 18 percent of the variance in the number of new math skills mastered by participating students was accounted for by total instructional time.

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*When the linear regression coefficient for the function of number of math skills by amount of instruction was adjusted for nonlinearity the obtained value was 2.3; the objective was attained.

TABLE 3

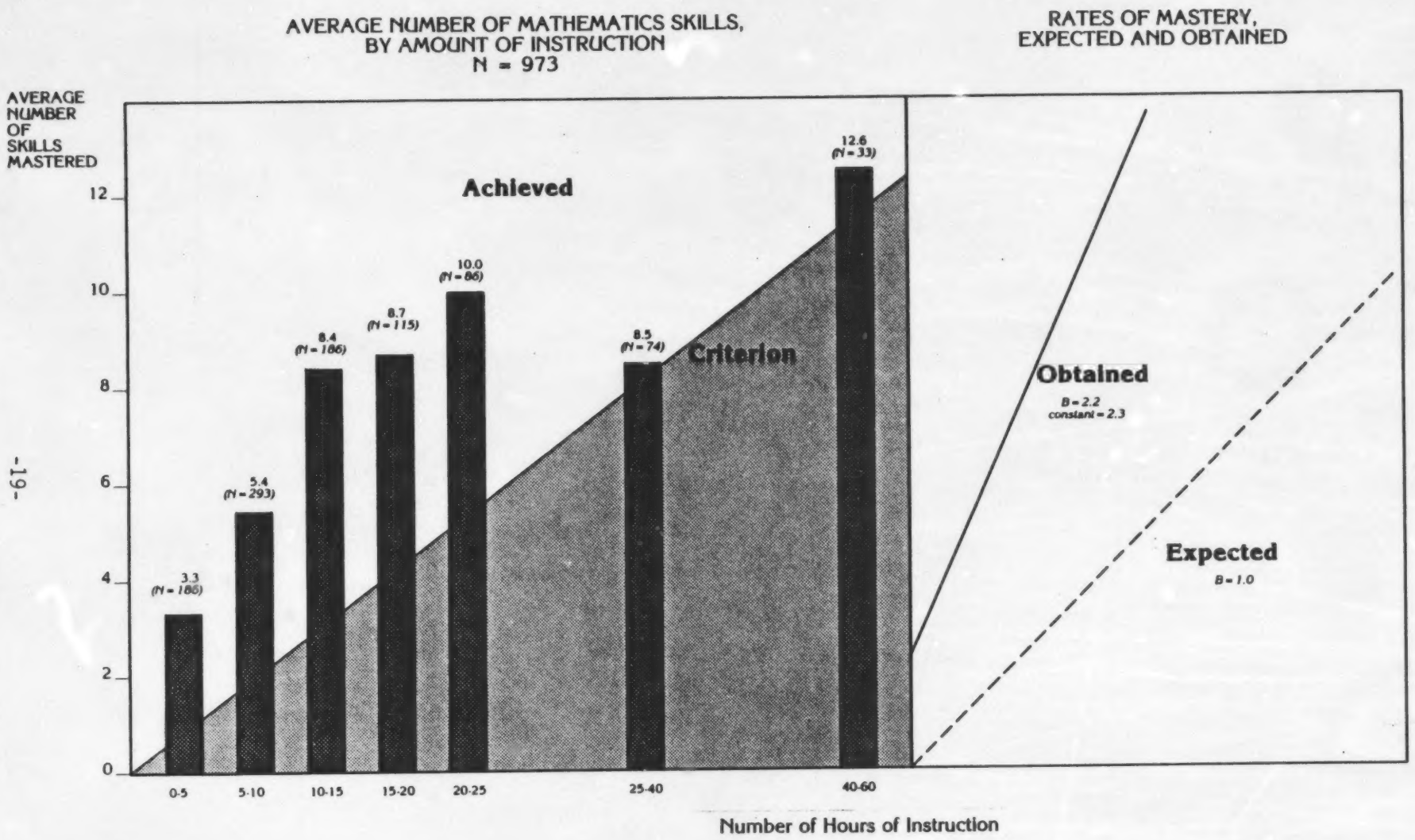
Frequency Distribution of Rates of Mastery of Mathematics Skills, Expressed as Number of Skills Mastered Per Five Hours of Instruction

Mastery rate	Number of student	Relative percent of population	Cumulative percent of population
More than 15	9	0.8	0.8
10 to 15	41	3.9	4.7
5 to 10	212	20.1	24.8
1 to 5	618	58.5	83.3
Less than 1	177	16.7	100.0
	1,057		

Over 80 percent of the students who were assessed on the Basic Arithmetic Skills Evaluation (BASE) test mastered one or more new skills for every five hours of instruction.

The average rate of mastery was 3.7 skills for every five hours of instruction.

FIGURE 3


AVERAGE NUMBER OF MATHEMATICS SKILLS, BY AMOUNT OF INSTRUCTION N = 973
RATES OF MASTERY, EXPECTED AND OBTAINED
AVERAGE NUMBER OF SKILLS MASTERED
Achieved
Criterion
Obtained
B = 2.2
constant = 2.3
Expected
B = 1.0
3.3 (N = 186)
5.4 (N = 293)
8.4 (N = 186)
8.7 (N = 115)
10.0 (N = 86)
8.5 (N = 74)
12.6 (N = 33)
0
2
4
6
8
10
12
0-5
5-10
10-15
15-20
20-25
25-40
40-60
Number of Hours of Instruction

IV. CONCLUSIONS AND RECOMMENDATIONS

The analyses of data from 1981-82 pupil achievement records and program observations and interviews indicated that, as in previous cycles, the Institutionalized Facilities Program provided effective after-school remedial instruction to approximately 3,000 children and adolescents residing in facilities for the delinquent or neglected. Although not strictly comparable because of the shift in program focus from reading, math, and writing skills to career education skills, pupil achievement apparently improved over the previous cycle as indicated by measures of the relationship between mastery of new skills and participation in the program. Specifically, during the 1981-82 cycle students mastered new career education skills at an average rate of 3.6 new skills for every five hours of instruction; for over 83 percent of the students the mastery rate was at least one skill per five-hour block. In reading, students mastered an average of 2.5 new skills for every five hours of instruction; 81 percent showed mastery rates equal to or greater than one. In mathematics, new skills were mastered at an average rate of 3.7 per five hours of instruction and 83 percent of the students showed mastery rates of one or more. In comparison, for the 1980-81 cycle, the pupil achievement criterion of one new skill for every six weeks of instruction was met by only 65 percent of the student in reading and 62 percent in math.

Direct comparison of the relationship between instruction and mastery for the past and present program cycles provided further evidence for increased effectiveness. Correlation coefficients between mastery and instructional time for 1981-82 were 0.43 for career education, 0.52 for read-

ing, and 0.43 for math; for the 1980-81 cycle the correlation coefficients were 0.41 for reading and 0.34 for math. Comparison of these correlation coefficients through the Fisher r to Z transformation, indicated that the correlation between reading and instruction was significantly higher in 1981-82 ($Z = 2.85$, $n = 1822, 1068$, $p<.01$); the correlations for mathematics did not differ significantly.

Attendance data for the 1981-82 cycle were not as impressive as the pupil achievement data. Population transience, which was substantial in the previous cycle, was apparently even more pronounced in the current one. Average attendance figures for the two semesters of 1980-81 were 28 days in the fall and 23 days in the spring. In 1981-82 only one full-year attendance figure for each student was reported; mean attendance was 20 sessions and the median was 13.

Program teachers reportedly found pupil transience the single most disruptive factor in providing an effective remedial program. The frequent student turnover, in combination with uncertainty as to the length of residence for any particular student, made the requirements of pre- and post-testing burdensome and, in many cases, impossible to fulfill. Almost all teachers favored the emphasis on career education although some felt it was not appropriate for all students served.

Overall, the program was highly effective in meeting its proposed goals. However, in light of the diverse and often transient population and also the change in program focus, the following recommendations are offered to further improve program effectiveness:

> Choice of program goals and assessment instruments should be more flexible. In particular, vocational/

occupational skills are not the most appropriate goals for certain mentally-retarded or very young children. In such cases, activities of daily living skills might serve as an effective alternative.

A program policy needs to be established concerning the instructional goals and curriculum for transient pupils. Individual instructional planning ought to consider probable length of residence.

The testing requirement should be more discretionary. In sites where populations are stable, pre- and post-testing presents no problems; in highly transient sites, however, this is often impractical. An attempt should be made to incorporate data retrieval procedures into ongoing planning and assessment.

More in-service training in occupational/vocational education should be attempted particularly in selection and use of curriculum materials.

Increasing the number of program sessions per week should be considered to offset the effects of pupil transience.